

APPLICATION NO. 10/808396

March 21, 2006

YR

CLMPTO

1. (Currently Amended) A semiconductor device comprising:

a substrate;

a first Group III nitride semiconductor layer formed on the substrate;

a first oxide layer formed in proximity to upper portions of defects present in the first

Group III nitride semiconductor layer; and

a second Group III nitride semiconductor layer including a positive layer and formed over each of the first Group III nitride semiconductor layer and the first oxide layer,

wherein the first oxide layer is obtained by oxidizing a portion of the first Group III nitride semiconductor layer which is present in proximity to the upper portions of defects,

a portion of the first oxide layer that is located in proximity to the defects has a thickness greater than a portion of the first oxide layer that is located on a region having no defect, and

the positive layer is an active layer composing a light emitting diode or a laser diode, or a channel layer of a field effect transistor.

2. (Currently Amended) The semiconductor device of claim 1, wherein the first oxide layer is obtained ~~by oxidizing, in an oxygen compound atmosphere, a portion of the first Group III nitride semiconductor layer which is present in proximity to the upper portions of the defects.~~

3. (Original) The semiconductor device of claim 2, wherein the oxygen compound is water vapor.

4. (Withdrawn) The semiconductor device of claim 1, wherein
the first Group III nitride semiconductor layer and the first oxide layer include a plurality
of the first Group III nitride semiconductor layers and a plurality of the first oxide layers,
respectively, which are formed in alternately stacked relation under the second Group III nitride
semiconductor layer and

a density of defects present in each of the plurality of the first Group III nitride
semiconductor layers decreases gradually with an increase in distance of a position of each of the
defects present therein from the substrate.

5. (Withdrawn) The semiconductor device of claim 1, further comprising:
a second oxide layer obtained by oxidizing the second Group III nitride semiconductor
layer in a water vapor atmosphere and located in proximity to the positive layer.

6. (Withdrawn) The semiconductor device of claim 5, wherein the second oxide layer is
a current block layer formed to cover a circumference of the positive layer and thereby confine a
current flowing in the positive layer.

7. (Withdrawn) The semiconductor device of claim 5, wherein the second oxide layer is
a gate oxide film of a field effect transistor formed on the positive layer.

8. (Original) The semiconductor device of claim 1, wherein the substrate is made of
sapphire, spinel, GaAs, Si, SiC, or GaN.

CLAIMS 9-25 (CANCELLED)